

Weekly Report

2018.01.15-2018.01.21

1.This Week

Summarization Form

Task	Progress	Time
Power Grid New Projects	System development.	February
Power Grid Visualization Survey	Gathering materials.	
VIS 2018 paper	Method selection and paper writing.	4.1

Power Flow Project in Ningbo

- 1.Give the picture of front end interface to Zhang Wei and ask her to help design the interface.
- 2.Students in Ningbo are taking exams so the progress of the project is suspended for a week.

Idea evaluation for VIS 2018

- 1.Discuss with Wang Qi about the backend plan and choose to use the file system to store our data(100+GB after extracted). In the meantime, I have asked Huang to provide more samples of different fault cases.
- 2.Gather learning materials of deep learning/machine learning classification models suitable for time series data and discuss with Chen Zexian about how to build a model in our case. We finally decide to try both LSTM and RNN model. For now, more details need to be discussed, about the feature selection, feature alignment.
- 3.Lin liwen is realizing basic projection methods like PCA, MDS, T-SNE so that when we finished process the data with the deep learning model we can directly use the code to project the results. We do not choose word embedding methods because we do not have continuous connection between elements (the only continuous connection is the temporal information).

4.Start paper writing from the related work section. The related work section include power grid fault analysis, anomaly visualization, visualization supported machine learning. For now, the subsection of power grid fault analysis is mostly finished.

Papers

more than 15 papers of power grid fault analysis(in order to write the related work section).

2.TODO

1. VIS 2018 paper.
2. the power grid project in Ningbo.